



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/102,939	06/23/1998	MARTIN BICHSEL	P/1336-101	2391
2352	7590	10/22/2003		
OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403				
			EXAMINER OPSASNICK, MICHAEL N	
			ART UNIT 2655	PAPER NUMBER 25

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/102,939

Applicant(s)

BISCHEL

Examiner

Michael N. Opsasnick

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on July 28, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-22, 27, 29-55 and 60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-22, 27, 29-55 and 60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-17,30-53,60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adlersberg et al (5012519) in view of Cooper (5790671).

As per claims 4,16,30,60, Adlersberg et al (5012519) teaches a method for compression of an electric audio signal (abstract) wherein:

the amplitude of said audio signal [or of a derived digital or analog signal] is normalized to a predetermined range D (as using a AGC to force a maximum range -- col. 4 lines 25-35; fig. 1, fig. 3; col. 5 lines 1-15 → the data is normalized according to the peak energy);

said audio signal is mapped using a non-linear function onto a second determined range of values W in order to obtain an emphasis of sensitive value ranges (as mapping the noise with a gain function to reduce the total amount of noise -- col. 7 lines 43-65)

the result is stored in electronic memory form (as storing the noise estimates -- fig. 2b; fig 6b, subblocks 513, 514)).

Adlersberg et al (5012519) also teaches periodically recording samples of ambient noise using a sounds transducer (as storing the noise estimates, and updating – col. 6b, subblocks 513-514).

As per claim 2, Adlersberg et al (5012519) teaches a nonlinear function to emphasize a range of values (as mapping the noise with a gain function to reduce the total amount of noise -- col. 7 lines 43-65).

As per claims 3,31, and 32 Adlersberg et al (5012519) teaches binary 3- 16 bits (as Fourier transform -- col. 5 lines 30-40 -- it is notoriously well known to perform a fourier transform with a 2^n number of bits for more efficient processing)

As per claims 4,33, and 34, Adlersberg et al (5012519) teaches band pass filtering with band signal attenuation (col. 2 lines 42-48)

As per claims 4,5, 35-37, Adlersberg et al (5012519) teaches banded signals ranging from 4-10 bands(col. 13 lines 20-30)

As per claim 6, Adlersberg et al (5012519) teaches a method for audio signals (col. 1 lines 5-11)

As per claims 7-17,38-53 Adlersberg et al (5012519) teaches amplitude control, band pass filtering, subtraction, convolution calculations (and coefficients), division stages, and rms energy value calculations (col. 6 line 35 – col. 7 line 61).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 18,19,27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adlersberg et al (5012519) in view of Kenyon et al (4450531).

As per claims 18,19,27,29, Adlersberg et al (5012519) does not explicitly teach using this technique for audio data in a television broadcast, however, a data carrier Kenyon et al (4450531) teaches a data carrier as television broadcast (col. 1 lines 7-12), and processor performing memory calculations and decision logic (Fig. 2; esp. subblocks 64 and 66). Therefore, it would have been obvious to one of ordinary skill in the art of audio signal processing to use the teachings of Adlersberg et al in a television broadcast medium because it would advantageously remove noise and process speech in real time (Adlersberg, col. 1 lines 5-11).

5. Claims 20,21, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Adlersberg et al (5012519) in further view of Uehara (5754798).

As per claims 20,21, and 54, Adlersberg et al (5012519) does not explicitly teach a power save mode when processing is not needed, however, Uehara (5754798) teaches a power save mode in which SMRAM states are compared to determine a power save mode (col. 21, line 60 - col. 22 line 4). Therefore, it would have been obvious to one of ordinary skill in the art of portable transmission devices to modify the teachings of Kenyon et al (4450531) in view of Cooper (5790671) with a power saving mode because it would advantageously save the power supply energy and extend the operating time of the device (Uehara (5754798), Fig. 1b, col. 1 lines 10-14).

6. Claims 22 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adlersberg et al (5012519) in further view of Hoffberg et al (5901246).

As per claims 22 and 55, Adlersberg et al (5012519) does not explicitly teach the exact structure/device to perform the calculations; however, Hoffberg et al (5901246) teaches a local processor located in a wristwatch (col. 80, lines 17-20), in which the device is used to broadcast information (col. 80, lines 17-20). Therefore, it would have been obvious to one of ordinary skill in the art of broadcasting signals to adapt the technique of Kenyon et al (4450531) in view of Cooper (5790671) into a wristwatch device because it would allow for the concealment of the device (Hoffberg et al (5901246), col. 80 line 20).

Response to Arguments

7. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. Although the arguments are rendered moot, examiner notes that in some arguments, such as 'mapping' is a one to one correspondence, applicant is reading the specification into the broadest scope possible into the claim language. Applicant is reminded that the examiner is required to review the claims with the broadest scope possible as interpreted by one of ordinary skill in the art.

Conclusion

8. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872 9314,

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (703)305-4089, who is available Tuesday-Thursday, 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To, can be reached at (703)305-4827. The facsimile phone number for this group is (703)872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (703) 305-4750, the 2600 Customer Service telephone number is (703) 306-0377.

mno
10/13/03

Vijay Chawan
10/13/03

**VIJAY CHAWAN
PRIMARY EXAMINER**